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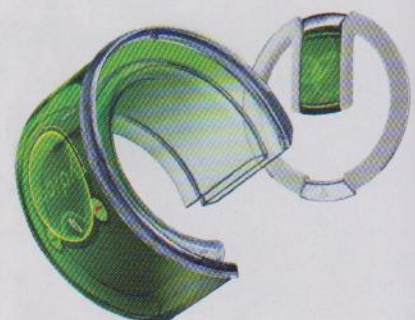
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- 1481 Tyrannosaur Paleobiology: New Research on Ancient Exemplar Organisms
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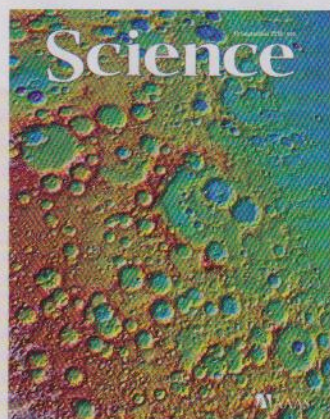
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COVER

Topographic map of the Moon based on measurements from the Lunar Orbiter Laser Altimeter, showing the boundary between Oceanus Procellarum, a smooth, relatively young mare region on the western nearside (upper right), and the older, more heavily cratered highlands (center and lower left). Colors indicate increasing elevation from blue to red. The crescent-shaped Lorentz crater (center) is ~312 kilometers in diameter. See the Reports on pages 1504, 1507, and 1510.

Image: NASA/LRO/LOLA/GSFC/MIT/Brown

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- 1488 Hemispheric Aerosol Vertical Profiles: Anthropogenic Impacts on Optical Depth and Cloud Nuclei**
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 Characterization of cancer cell metabolism provides evidence for a previously uncharacterized metabolic pathway.

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- 1507 Global Silicate Mineralogy of the Moon from the Diviner Lunar Radiometer**
B. T. Greenhagen et al.
- 1510 Highly Silicic Compositions on the Moon**
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 Remote thermal emission spectroscopy reveals the existence of complex igneous processes on the Moon.
- 1513 Rainforest Aerosols as Biogenic Nuclei of Clouds and Precipitation in the Amazon**
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- 1518 A Test of the Snowball Theory for the Rate of Evolution of Hybrid Incompatibilities**
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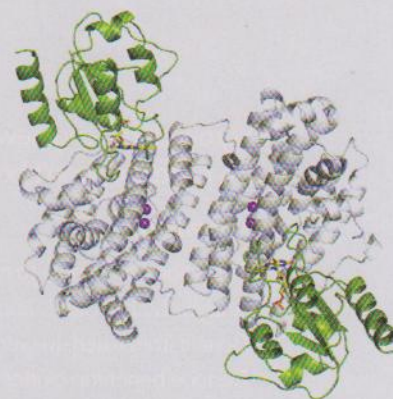
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Family Planning and the Millennium Development Goals

W. Cates Jr. et al.

To alleviate global poverty, investments and partnerships in family planning are needed.

10.1126/science.1197080

Fast Vesicle Fusion in Living Cells Requires at Least Three SNARE Complexes

R. Mohrmann et al.

Membrane fusion proteins cooperate to promote rapid secretory vesicle exocytosis from neuroendocrine cells.

10.1126/science.1193134

Impeding *Xist* Expression from the Active X Chromosome Improves Mouse Somatic Cell Nuclear Transfer

K. Inoue et al.

Efficiency of mouse nuclear transfer was improved by correcting aberrant gene expression on the active X chromosome.

10.1126/science.1194174

IDH2 Mutations in Patients with α -2-Hydroxyglutaric Aciduria

M. Kranendijk et al.

A mutation that changes the specificity of an enzyme in human cancer is also found in an inherited metabolic disorder.

10.1126/science.1192632

Propane Respiration Jump-Starts Microbial Response to a Deep Oil Spill

D. L. Valentine et al.

Hydrocarbon gases were the first compounds that bacteria degraded in deep underwater petroleum plumes.

10.1126/science.1196830

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EDITORIAL GUIDE: Focus Issue—

Evolution III—Domains for Change

N. R. Gough

Domains provide evolution with tools for the creation of new functions.

RESEARCH ARTICLE: Characterization of the Extrinsic Apoptotic Pathway in the Basal Chordate *Amphioxus*

S. Yuan et al.

Death domain-dependent signaling in the basal chordate *amphioxus* suggests that extrinsic apoptotic signaling is not restricted to vertebrates.

PERSPECTIVE: Domain Recombination—A Workhorse for Evolutionary Innovation

G. Apic and R. B. Russell

Firm evidence for domain shuffling as a means of evolving new functions may lead us to the creation of combinations of practical benefit.

PERSPECTIVE: Signals—Tinkering with Domains

E. Bornberg-Bauer

Binding domains in signaling proteins can tolerate sequence variation but still bind ligands and be structurally stable.

REVIEW: ABL Tyrosine Kinases—Evolution of Function, Regulation, and Specificity

J. Colicelli

Insight into the regulation of ABL-family tyrosine kinases could facilitate development of therapies for malignancies driven by ABL fusion proteins.

SCIENCE CAREERS

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Free Career Resources for Scientists

Tooling Up: A Job-Search Plan for the Person Without One (Part 2)

D. Jensen

The key to a successful job hunt is to precisely target particular jobs.

Expanding the Genetic Code

E. Pain

Trained as a chemist, Jason Chin is rewriting central dogmas of biology by coaxing cells to make proteins containing novel amino acids.

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PERSPECTIVE: GIP—No Longer the Neglected Incretin Twin?

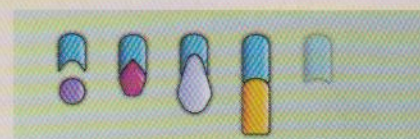
R. N. Kulkarni

The incretin hormone gastric inhibitory polypeptide may be a promising therapeutic target for type 2 diabetes.

COMMENTARY: A Multi-Level Systems Perspective for the Science of Team Science

K. Börner et al.

Understanding how teams function is vital, because they are increasingly dominating the production of high-impact science.



SCIENCE SIGNALING
Evolving domains.

RESEARCH ARTICLE: Personalized Epigenomic Signatures That Are Stable Over Time and Covary with Body Mass Index

A. P. Feinberg et al.

Epigenetic signatures akin to genetic fingerprints may correlate with a common genetic trait.

RESEARCH ARTICLE: Disruption at the *PTCHD1* Locus on Xp22.11 in Autism Spectrum Disorder and Intellectual Disability

A. Noor et al.

Mutations of the X-linked gene *PTCHD1* are associated with autism spectrum disorders and intellectual disability.

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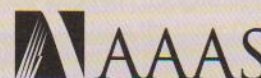
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